

**TESTIMONY OF
G. TRACY MEHAN, III
ASSISTANT ADMINISTRATOR FOR WATER
U.S. ENVIRONMENTAL PROTECTION AGENCY
BEFORE THE
SUBCOMMITTEE ON WATER RESOURCES AND ENVIRONMENT
OF THE
COMMITTEE ON TRANSPORTATION AND INFRASTRUCTURE
U.S. HOUSE OF REPRESENTATIVES**

November 15, 2001

INTRODUCTION

Good morning Mr. Chairman and members of the Committee. I am Tracy Mehan, Assistant Administrator for Water at the U.S. Environmental Protection Agency (EPA). I look forward to discussing with you the status of the Total Maximum Daily Load (TMDL) Program and EPA's efforts to make the program a more effective tool to improve water quality. Providing States and Tribes with greater flexibility and the ability to utilize market-based approaches that provide economic incentives for early reductions and minimize the cost of implementation is an important part of EPA's strategy.

I envision TMDLs to be a kind of information-based strategy which, if done properly, can inform, empower, and energize citizens, local communities, and States to improve water quality at the local, watershed level. The basic information derived from a sound TMDL could liberate the creative energies of those most likely to benefit from reduced pollutant loadings to their own waters.

As you are aware, next year marks the 30th anniversary of the Clean Water Act (CWA). Thirty years ago, the Nation's waters were in crisis -- the Potomac River was too

dirty for swimming, Lake Erie was dying, and the Cuyahoga River had burst into flames.

Many of the Nation's rivers and beaches were little more than open sewers.

The 1972 Clean Water Act has dramatically increased the number of waterways that are once again safe for fishing and swimming. The Act launched an all-out assault on water pollution, including new controls over industrial dischargers, support for State efforts to reduce polluted runoff, and a major investment by the federal government to help communities build sewage treatment plants.

Despite past progress in reducing water pollution, almost 40 percent of the Nation's waters assessed by States still do not meet water quality goals established by States under the Clean Water Act. Section 303(d) of the CWA established the TMDL program in 1972, requiring States to identify waters not meeting State water quality standards, also called impaired waters, and to establish pollution budgets, called TMDLs, to restore the quality of those waters. The Act requires EPA to approve or disapprove lists and TMDLs, and to develop lists or TMDLs if the State action is disapproved.

Today, I would like to describe EPA's re-evaluation of the July 2000 TMDL rule and our efforts to improve the program under the current regulations.

RE-EVALUATION OF THE JULY 2000 RULE

In July 2000, EPA issued revisions to the TMDL and National Pollutant Discharge Elimination System (NPDES) programs. This rule amended regulations, which were first issued in 1985 and amended in 1992. The rule was intended, in part, to address issues that were arising in numerous lawsuits brought against EPA because of deficiencies in State programs. Forty law suits in thirty-eight States were moving management of the program

out of the Agency and into the courts. The specifics of the rule, and the way in which it was issued, created much controversy. On October 26, 2000, Congress prohibited EPA from expending funds from FY 2000 and FY 2001 to implement this rule. In the Conference Report accompanying EPA's FY2001 appropriations bill, Congress directed EPA to contract with the National Academy of Sciences/National Research Council to review the quality of the science used to develop TMDLS. Congress also directed EPA to undertake a comprehensive analysis of costs associated with the TMDL program.

Organizations representing many different interests -- agricultural, industry and environmental -- challenged many aspects of the 2000 rule in court. Because of these controversies and uncertainties, on August 9, 2001, EPA proposed to delay the effective date of the rule for 18 months. This delay, until April 30, 2003, was made final and published in the *Federal Register* on October 18, 2001.

EPA hopes to develop a rule over the course of the next year and a half that leads to restoration of our nation's impaired waters in the most efficient way. The Agency has begun a series of "listening sessions" across the country to gather ideas from the public and interested organizations on ways to improve the TMDL program. We hope to propose a new rule in Spring 2002 and promulgate a final rule before April 30, 2003. We recognize that this is an ambitious schedule. We are at an early stage of the rulemaking process, and I would welcome the opportunity to meet with the Committee in the future as we begin to crystalize our thinking.

RECENT ACTIONS AFFECTING THE RULE

National Research Council Report

In June, the National Research Council published its report “Assessing the TMDL Approach to Water Quality Management,” which recognizes that there is enough science to “move forward with decision-making and implementation of the TMDL program.” In addition to identifying research needs, the report calls for program changes to better account for scientific uncertainties, to improve the water quality standards and monitoring programs, and to employ adaptive implementation. One of the most critical recommendations is for States to strengthen their monitoring programs. EPA will take a careful look at these recommendations as it develops revisions to the existing program.

TMDL Cost Study

In August, EPA published a draft study on “The National Costs of the Total Maximum Daily Load Program.” This study examined the costs of developing the TMDLs as well as the costs of putting in place “on-the-ground” actions, e.g., permits and best management practices, to reduce the pollutants causing poor water quality. The cost study addresses the full range of costs of the TMDL program, rather than just the costs of changes called for by the 2000 rule. The draft study estimated the costs to develop all TMDLs necessary under the 1998 lists to be about \$69 million annually over the next 15 years. Costs to implement pollution reductions that may be required by these TMDLs were estimated to be between \$900 million and \$4.3 billion dollars annually. Comments on this study are due to the Agency by December 7.

Stay of 2000 Rule Litigation

On October 12, 2001, the District of Columbia Circuit Court agreed to stay the litigation on the July 2000 TMDL rule pending further order of the court so long as EPA was taking “reasonably prompt action” to address the issues through new rulemaking. We will be reporting to the court on our progress in the new rulemaking every 90 days.

KEY ISSUES FOR RULEMAKING

The 2000 rule included a very detailed set of requirements for States to meet that relied heavily on detailed EPA oversight. Many of the objectives of the program could be better served through EPA support of State efforts in a framework that recognizes the need for flexibility to accommodate various effective approaches that States may wish to employ.

Major issues that the new rulemaking effort will examine are similar to issues raised in the past: scope, timing, and methodology for the lists; the inclusion, within the TMDL itself, of an implementation plan with reasonable assurances; the timeframe in which a TMDL must be completed; the role of the stakeholders in TMDL development; and EPA’s role in backstopping the States, when a State fails to act. I believe that EPA must also find ways within the context of the CWA to permit and offset growth and to allow States and Tribes to implement voluntary trading programs that implement TMDLs or make progress towards attainment of standards pending development of TMDLs for impaired waters. These issues are intimately related to the successful implementation of TMDLs and maintaining a strong competitive economy.

303(d) Listing Issues

Some of the questions we seek to answer are what should be the length of the listing cycle -- two (as it is now), four, or five years? How broad should the list be? Should it include waters impaired by "pollution," or waters where a TMDL has been completed, but standards have not yet been attained?

Should waters that are threatened, but not yet impaired be put on the list, as is the case under the current regulations? Should lists include monitoring schedules? What should be the role of the public, in reviewing, and EPA, in approving, the State's methodology for putting the list together? Should we combine the Section 305(b) water quality report and the Section 303(d) impaired waters listing processes?

Implementation Plans and Reasonable Assurance

One of the most challenging issues concerns implementation of the TMDL once completed. The 2000 rule attempted to make sure that TMDLs will not be just "plans on a shelf" but were actually implemented to restore impaired waters. To accomplish this, the 2000 rule called for an implementation plan approved by EPA as part of the TMDL. This meant that EPA would have to adopt an implementation plan if a State TMDL was disapproved. The difficulty is that in many cases EPA does not have the breadth of authority outside the CWA that States may have to accomplish implementation.

I think we all agree that it makes little sense to invest a lot of time and money into developing TMDLs that do not contribute to improving the nation's water quality; consequently, we are engaged in a number of efforts designed to help make TMDLs more effective. For example, we are working with our Office of Research and Development to develop load allocation models and best management practice design methods to identify cost-effective restoration and treatment approaches. Furthermore, we will be exploring

whether there are other mechanisms, and other Clean Water Act provisions, that can help translate the calculation of pollutant reductions into environmental improvements. Incorporating market-based programs like trading in TMDL implementation strategies offers tremendous potential water quality and economic benefits. We are also working closely with United States Department of Agriculture (USDA) to explore opportunities to use USDA programs, activities, and expertise through locally-led efforts in support of watershed work, and natural resource conservation, protection and enhancement, including TMDL implementation.

Another related issue concerns how EPA and the States can determine what constitutes “reasonable assurance” that pollutant reductions are technically achievable and that there is planning, financing and institutional support for implementation.

Timeframe for Completing a TMDL and Meeting Water Quality Standards

One of the major concerns raised in the litigation on TMDLs nationwide is the pace at which TMDLs are being developed. The 1985/1992 rules do not address this issue. The July 2000 rule addressed this issue by setting a requirement for States to establish evenly-paced schedules over 10-15 years after a water is listed. EPA expressed an expectation in 1997 -- prior to development of the new regulation -- that TMDLs would be developed within 8-13 years from initial listing.

Another concern is the timeframe in which water quality standards will be attained. The 2000 rule sets a goal of 10 years, where practicable.

EPA’s Role in Developing the TMDL

While each year the pace of State activity has increased, the current pace of TMDL development falls short of what would be needed to complete TMDLs in 15 years. The CWA

requires EPA to step in and do the TMDL if it disapproves a State-submitted TMDL. Some courts have applied a “constructive submission” doctrine that holds that State failure to submit TMDLs over a long period of time may obligate EPA to disapprove those never-submitted TMDLs and to establish TMDLs for the State.

What timeframe is needed? Should States and EPA be afforded an extended amount of time recognizing the workload and the need for public participation? What should EPA’s role be if a State does not adhere to its schedule? Finally, what should be the role of EPA in issuing or objecting to NPDES permits in impaired waters both prior to a TMDL and after development, if a State fails to take appropriate action?

CURRENT PROGRAM ACTIVITIES

Current Regulations and Court Cases

Even though the July 2000 rule is not in effect, the TMDL program continues to be very active. The current program operates under the regulations adopted in 1985 and 1992, and, in many States, under court orders, consent decrees, or settlement agreements brought about as a result of litigation.

As most of you know, EPA and States, until the early 1990s, emphasized technology-based pollution control programs required by the CWA, including implementation of Best Available Technology by NPDES permittees. EPA and the States gave lower priority to the water quality-based TMDL program. Thus, relatively few TMDLs were developed, and many State lists of impaired waters were incomplete and not submitted in a timely manner.

A number of years ago citizen organizations began legal actions against EPA over the sufficiency of the lists of impaired waters and to hasten the development of TMDLs. In

over 20 States, these cases were resolved with agreements for States to identify their impaired waters and establish TMDLs. Where States fail to act, EPA must step in and identify the polluted waters or establish the TMDLs. Unfortunately, these lawsuits against the Agency continue, with new cases in Ohio and Nevada filed last month.

Status of Lists and TMDLs

All States submitted their Section 303(d) lists of impaired waters in 1998, and even though the requirement to submit a list in 2000 was set aside, over 12 States submitted lists last year. Approximately 20,000 water bodies have been identified as impaired. The next list of impaired waters is due on October 1, 2002.

States and EPA also continue to develop TMDLs. Approximately 2000 TMDLs were approved in FY2001 for a cumulative total of over 3,500 TMDLs nationwide.

IMPROVING THE CURRENT PROGRAM

EPA has initiated an effort to improve State and EPA performance and the credibility of the program under the current rules. This effort involves better integration and coordination of the basic elements of the clean water program: water quality standards, monitoring, TMDLs, point and nonpoint source program implementation, development of additional technical tools (BASINS 3.0, improved models, protocols and model TMDLs), and use of the increased resources that have been provided over the past couple of years for States and EPA.

Future Directions

To improve the State's capability to monitor and assess water and respond to National Academy of Sciences/National Research Council recommendations, EPA is taking

steps to strengthen State monitoring programs so States have more timely monitoring information to support their decision making. States should be able to monitor more of their waters, and be in a better position to determine if all their waters are meeting standards. The Agency continues to encourage and support the use of the rotating basin approach, and seek ways to strengthen State assessment methodologies. We would like to ensure that States' Section 305(b) water quality reports and their Section 303(d) lists of impaired waters are consistent and use the best quality data available. We also seek better ways to measure the water program's performance in meeting Government Performance and Results Act goals, and to improve public confidence in assessments of water quality and listing of impaired waters.

Consolidated Assessment and Listing Methodology (CALM)

To assist in establishing better assessments and lists, EPA worked with States and many stakeholders to develop a draft guide in May 2001 called the *Consolidated Assessment and Listing Methodology* or "CALM." CALM is a compendium of "best practices" and a guide to the minimum elements of a comprehensive State monitoring program. It contains much information on best practices for monitoring and assessing water quality, including methods for determining when water quality standards have been met and how to identify sources of water quality impairment. We hope to have a first edition of CALM available late this fall.

Integrated Report Guidance

Just last week, EPA distributed among its Regions and the States, a new guidance, "2002 Integrated Water Quality Monitoring and Assessment Report Guidance." This guidance is an important step in setting out a framework for an efficient and informative

approach to monitoring, assessment, and listing activities. Our intention is that these activities support each other and that the story they tell about the health of our nation's waters is a consistent one. This guidance calls for States to develop credible, publically-reviewed methodologies through which they can more adequately determine if waters are meeting water quality standards and, if not, why not.

The guidance also asks that States identify waters using a common geographic locational database, the U.S. Geological Survey's National Hydrography Dataset. Currently, the size and locations of waterbodies identified by States can range from less than a mile to over 200 miles. Using the national hydrography dataset will result eventually in greater clarity regarding sizes of waters assessed and monitored. This is especially important for interstate and cross-boundary waters.

OTHER INITIATIVES UNDER THE CURRENT REGULATIONS

Nonpoint Source Guidance

EPA is also seeking better ways, under the current program, to ensure that once TMDLs are developed they will be more than a plan on a shelf. They should help guide the reductions in pollutant loadings that are needed to meet water quality standards. This is particularly important when the federal government relies on a voluntary, incentive-based program for addressing nonpoint source pollution. On September 13, 2001, EPA issued a guidance, "Supplemental Guidelines for the Award of Section 319 Nonpoint Source Grants to States and Territories in FY 2002 and Subsequent Years." This guidance provides that a portion of the Section 319 grant funds, for FY 2003 and beyond, should be used for developing TMDLs for nonpoint source waters and watershed plans incorporating TMDLS, as well as for "on-the-ground" actions to reduce pollutants. This guidance can be found at <http://www.epa.gov/owow/nps/Section319/fy2002.html>.

Trading

EPA is currently revising its Trading Policy. These revisions will build on the lessons learned from a number of recently-completed demonstration projects, and will address key regulatory issues related to TMDLs and permitting. Trading is an innovative way for water quality agencies and community stakeholders to develop common-sense, cost-effective solutions for water quality problems in their watersheds. Community stakeholders include States and water quality agencies, local governments, point source dischargers, contributors to nonpoint source pollution, citizen group, other federal agencies, and the public at large. Trading is another tool for communities to grow and prosper while retaining their commitment to water quality.

The interest in trading is growing, though many programs are in the planning stages and actual transactions to date are limited. The development of a TMDL provides a promising opportunity for trading, in which stakeholders can implement the most cost-effective and/or equitable allocation of pollutant reduction responsibilities.

USDA TMDL Workgroup

Because agricultural producers and silviculturalists work with such a large proportion of land area in the United States, EPA is making special efforts to seek input from the United States Department of Agriculture (USDA) as we begin development of a new TMDL rule. USDA is providing input that could help us to strengthen the agricultural, forestry, and natural resource systems perspective in the final rule.

Even though the NRC recognized that there is enough science to “move forward with decision-making and implementation of the TMDL program,” the committee also identified research needs. Indeed, the NRC challenged EPA to “make substantial efforts to reduce uncertainty.” EPA’s Office of Research and Development is helping to meet these needs by developing diagnostic methods and models for determining TMDLs, as well as decision support tools for watershed managers to identify cost-effective approaches to meet TMDL limits. This research will assist in both establishing water quality criteria by developing ecological indicators for chemical and microbial pollutants, and implementing watershed management by developing load allocation models and cost effective restoration and treatment technologies.

TMDL SUCCESS STORIES

The TMDL program, as it is currently being implemented, is helping restore waters across the nation. Here are just a few examples:

Yakima River, Washington

The lower Yakima River basin is located in south-central Washington State. It is one of the most intensively irrigated and agriculturally diverse areas in the United States. Suspended sediment and persistent pesticide loads from irrigated agricultural areas of the lower Yakima River basin have long been recognized as serious impairments to water quality. The Washington State Department of Ecology, working with the local Irrigation District, the Yakama Indian Nation (the Yakama Indian Reservation covers over forty percent of basin, but is outside of the State's jurisdiction) and EPA, developed a TMDL in 1998 that included 20 year goals, with specific 5 year milestones to restore the river.

Empowered by the complementary concern over soil loss to farmers, the TMDL focused on actions at the farm level to meet the long term goal of a 90% reduction in sediments. Throughout the watershed, the partners have concentrated on individual farm efforts to construct settling ponds, as the principle technique to reduce soil loss. By 2000 results showed a 50% reduction and this year the results were close to 80%. The Yakama Indian Nation and Ecology joined in a data-sharing and cooperative monitoring agreement for the project.

Mecklenburg County, North Carolina

Typically, State environmental agencies develop TMDLs for impaired waterbodies. However, there are exceptions to this rule. Recently, Mecklenburg County started an urban fecal coliform TMDL to address the problem of harmful bacteria in the county's water. The county decided to develop the TMDL because the State was going to do it. The county believed it was in a better position to develop the TMDL because it knew all the local players who lived and worked in the watershed. In addition, the county had better access to data.

The county worked with many local agencies including the Charlotte stormwater program, Charlotte Mecklenburg utilities, the State and many other stakeholders to develop the TMDL. Mecklenburg County had the lead role in developing the technical aspects of the TMDL e.g., the modeling, source assessment and allocation strategy, as well as coordinating meetings with stakeholders. The North Carolina Division of Water Quality has been involved throughout and will ultimately submit the TMDL to EPA's Region IV Office for approval. This locally-developed TMDL has many advantages: suggestions offered during the allocation process and the local entities are helping to develop the implementation strategy.

Deep Creek, Montana

Deep Creek is a major tributary of the Missouri River located in Townsend, Montana. The creek provides spawning and rearing habitat for rainbow trout and brown trout. This habitat was impaired by excess sediments and high water temperatures due to unstable streambanks and loss of meanders in the stream. The sediment TMDL demonstrates how the TMDL process was used to begin mitigation activities even when there was incomplete knowledge of sediment sources and load rates. The TMDL set specific performance

targets, such as percent reduction in the length of erosive streambanks. The TMDL is a dynamic plan of action, not just a static allocation of loads. Local landowners, the Conservation District, and the Irrigation District are working with others to restore the creek. Restoration activities include channel modifications, planting of junipers and willows, widening of the riparian zone, and fencing to exclude livestock from the stream and riparian areas. Local landowners are providing the willows and junipers to stabilize the banks, and undertaking improved grazing management practices. The local Conservation District is managing the contracts for some of the work and, in addition, the Irrigation District is voluntarily limiting water withdrawals to protect the aquatic habitat.

Boulder Creek, Colorado

Boulder Creek flows west toward Boulder, Colorado. The aquatic life in the creek was impaired by an excess of un-ionized ammonia in parts of the creek downstream from a wastewater treatment plant and other point source dischargers. High water temperature and pH were the primary causes of the ammonia and were linked to physical degradation of the creek's riparian zone. Species diversity and density were low even in areas of the creek with good water quality. Therefore, more stringent effluent limits and plant upgrades alone would not solve the problem. A combination of plant upgrades, best management practices and habitat restoration was needed to improve water quality in Boulder Creek. The cost of the studies needed to develop this TMDL were very modest: approximately \$6,000.

The actions needed to improve water quality were phased. The first phase was the improvement of effluent quality at the wastewater treatment facility, followed by improvements of the riparian zone. Not only did instream conditions improve, but community cooperation and interest in the project were very high. The second phase

involved reducing impact of irrigation return flows and the construction of rock/willow jetties to break up erosive currents.

The Boulder Creek Enhancement project has been an effective way to restore water quality. It combines nonpoint source control measures with traditional point source treatment to achieve water quality goals. Both the State of Colorado and EPA have praised the project for its use of alternative technology. Total cost of this project were in the range of \$1.3-1.4 million.

CONCLUSION

Over the next months, we will work with Members of Congress and their staff, other federal agencies, States, and other interested parties to develop a proposed TMDL regulation that is more workable, effective, and acceptable. Under the current program, we will continue progress in improving water quality nationwide.

Thank you, Mr. Chairman and members of the Subcommittee for this opportunity to testify on EPA's efforts, in cooperation with States and other federal agencies such as the Department of Agriculture, to restore the Nation's polluted waters.

I will be happy to answer any questions.

* * *